APOLLO HOSPITALS - SECUNDERABAD

TELANGANA, INDIA

Department of Emergency Medicine

2016

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CONTENTS

1) Introduction

Emergency Medicine Department (EMD) is the frontline area of patient care in the hospital and is committed to providing early access, appropriate transport and treatment in its pre-hospital care and quality emergency care to all patients visiting the emergency medicine department.

The EMD broadly has two areas of operations

1) **Emergency Medical Services (**Pre-hospital care in ambulance by emergency medical technicians & ambulance drivers)

2) **Emergency Room** (In-hospital care by emergency physicians, emergency nurses, housekeeping & other assistants)

2) Mission

1) Improve access to emergency care for the community by providing state of the art pre-hospital emergency medical services

2) Appropriate and rapid triage, focused assessment ,investigation, treatment and interventions for all patients as per the clinical need

3) Demonstrate compassion, empathy and warmth while delivering the clinical care towards patients and their families

4) Leadership in disaster preparedness, Multi casualty Incident Response in both pre-hospital and in-hospital arena.

5) Achieve highest levels of confidence in services rendered by the department for internal and external users

3) Layout & Floor Plan

The emergency medicine department is located on the ground floor of the hospital and has a dedicated access for patient entry to Emergency Room (ER). The ER floor area is divided into following areas broadly

a) **Nursing & Reception Desk**

b) **Ambulance Control desk**

c) **Attendants Waiting Area**

d) **Triage and Resuscitation area** (3 gurneys *Resuscitation/ Triage 1, 2, 3*)

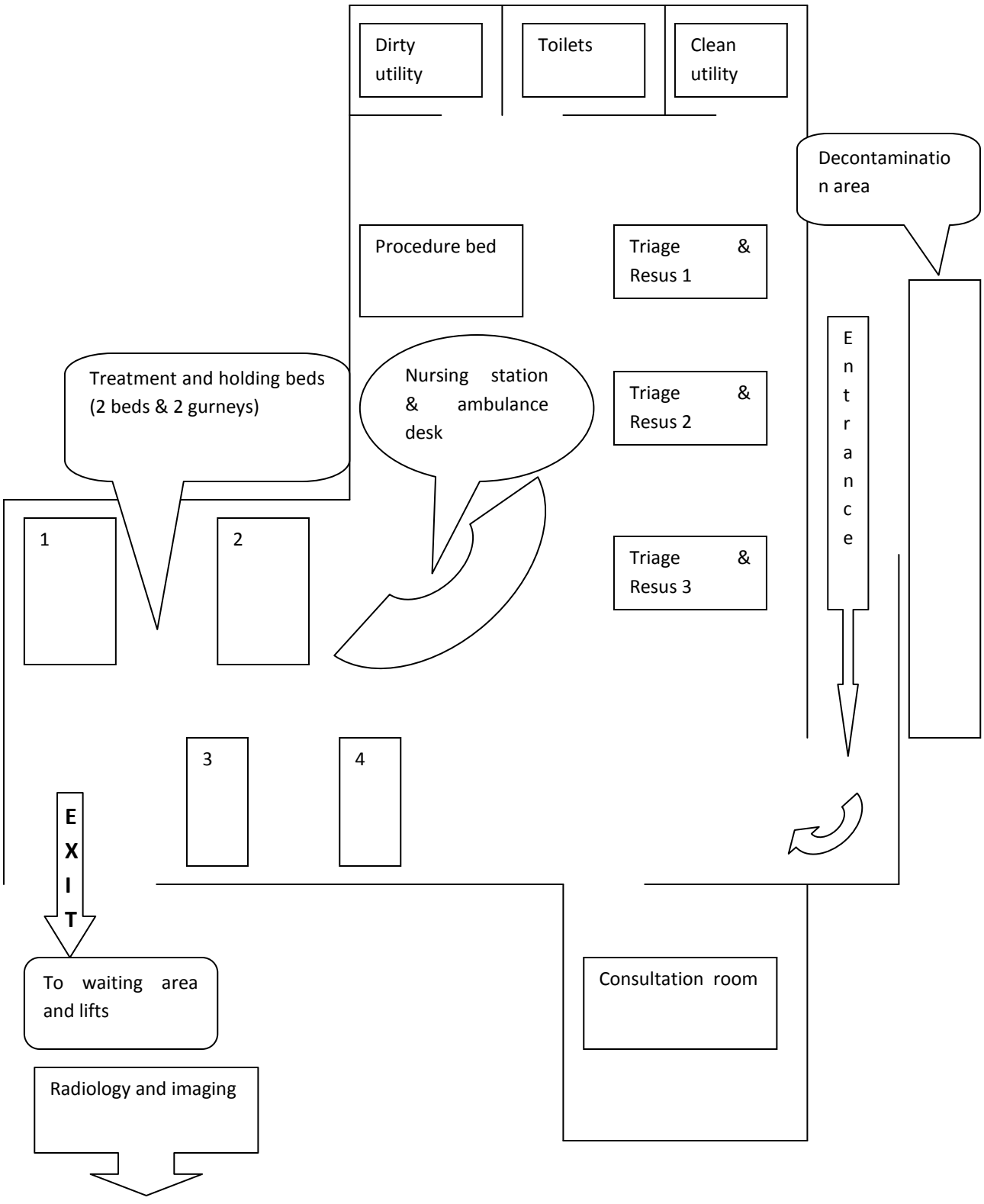
e) **Treatment area** (4 beds –*1, Treatment 1, 2, ,3,4*)

f) **Procedure area** (1 bed – *Procedure 1*)

g) **Clean Utility, Dirty Utility & Toilets**

h) **Emergency Physician Consultation Room**

i) **Decontamination Area** (Near ambulance parking)

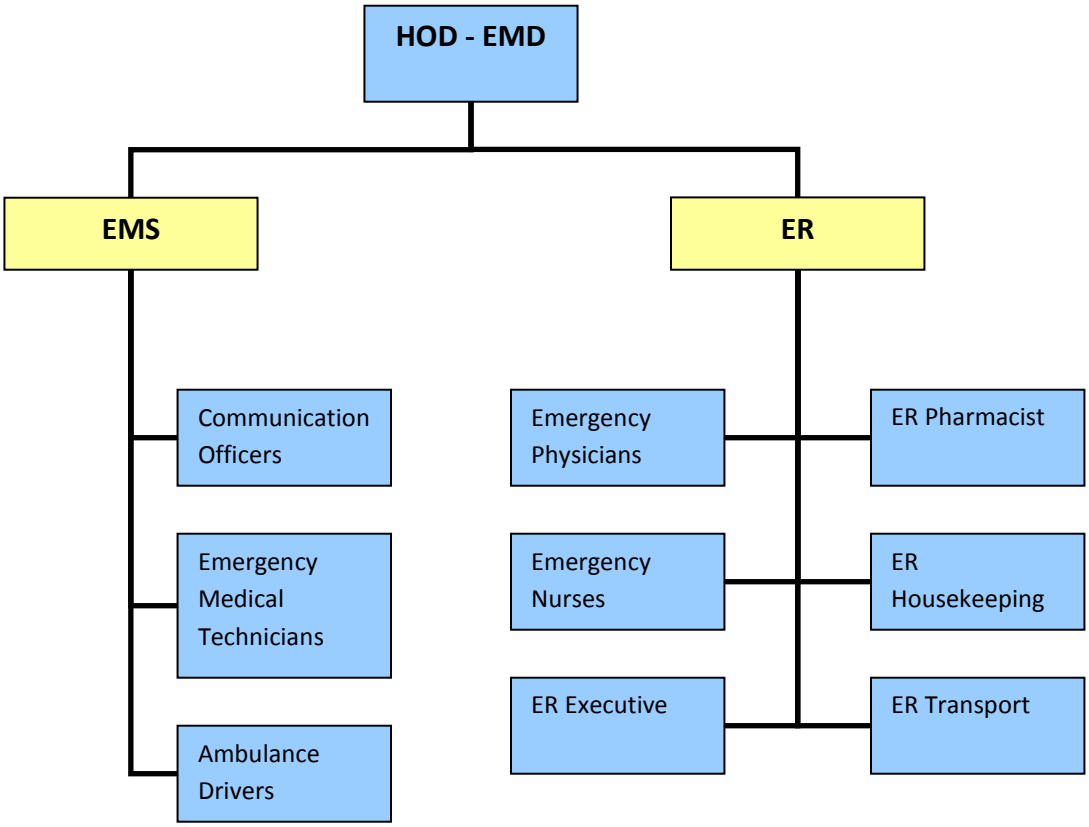

Dirty utility
Toilets
Clean utility
Decontaminatio n area
Procedure bed
Triage & Resus 1
Entrance
Treatment and holding beds (2 beds & 2 gurneys)
Nursing station & ambulance desk
Triage & Resus 2
1
2
Triage & Resus 3
3
4
EXIT
To waiting area and lifts
Consultation room
Radiology and imaging

4) Scope of Service

The scope of service of the Department of Emergency Medicine is as follows:

1. To operate an ambulance control center. This will be accessible by phone 24 hours, 7 days a week and will coordinate the dispatch of ambulances for emergency calls.
2. To quickly pick up and safely transport emergency patients in well equipped ambulances with trained emergency medical technicians.
3. To ensure proper triaging, diagnosis, resuscitation, initial treatment and disposition of all patients brought into the emergency room.
4. Isolation of emergency patients with suspicion of infectious disease.
5. Documentation of medicolegal cases and issue of injury certificates to the court.
6. Coordination & delivery of emergency care to the victims of multi-casualty incidents (Disasters), both in the community as well as within the hospital.
7. Training of all emergency staff in the current protocols & clinical care guidelines.
8. Immediate resuscitation of patients who have a cardiac arrest within the hospital, as a part of the Medical Emergency Response Team.

5) Department Structure



HOD – Head of Department, EMD – Emergency Medicine Department, EMS – Emergency Medical Services, ER – Emergency Room.

6) Staffing & Manpower

Designation	Numbers	Area of operation	Supervision
Consultant & HOD-EMD	01	EMD	CEO / MS
Nurse Incharge	01	ER	HOD-EMD / Nursing Superintendent
Staff Nurses	15	ER	Nurse Incharge / HOD-EM
ER physicians	08	ER	HOD-EM
ED executive	01	EMS / ER	HOD-EM / GM-Operations
EMTs	06	EMS / ER	HOD-EM
Ambulance drivers	06	EMS	Executive EMD / HOD-EM

EMD – Emergency Medicine Department, ER – Emergency Room, ED – Emergency Department,
EMT – Emergency Medical Technician, GM – General Manager, EMS – Emergency Medical Services.

Roles and Responsibilities

- Responsibilities will be as per the job description by HR department, however, emergency medicine department demands team work.
- Individuals are expected to be leaders in their own capacity but simultaneously be the active members of the emergency department team.
- All individuals must strive towards achieving the goals of the department

Desired qualification for HOD-EM

MCEM or **FCEM** - Member / Fellow of College of Emergency Medicine (United Kingdom) or

FACEP (USA) or **FACEM** (Australia) or

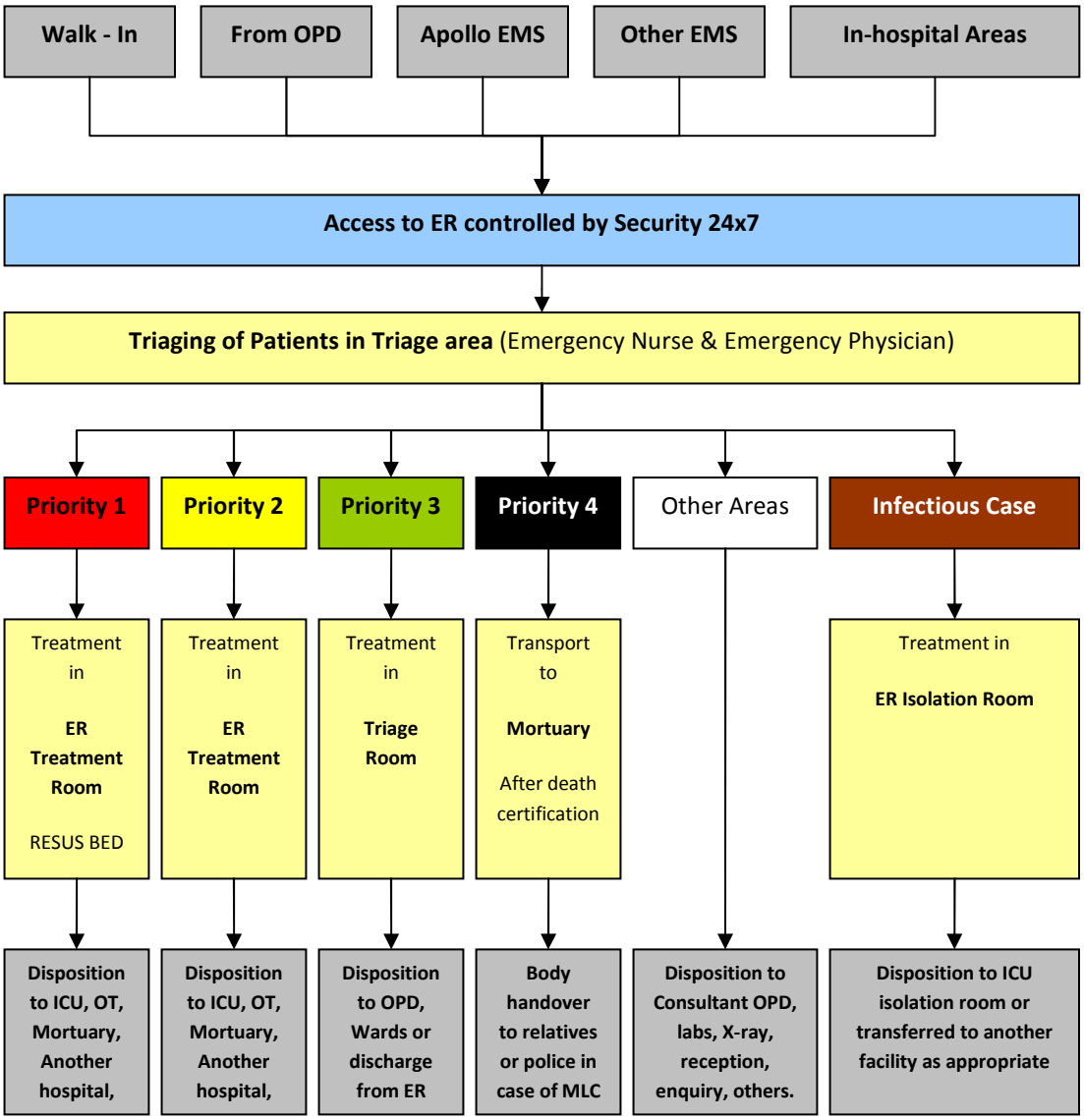
MD Emergency Medicine with 1 year experience or

FEM or **FAEM** or **DipEM** - Fellowship / Diploma in Emergency Medicine with 1 year experience

All must be able to demonstrate administrative experience. Those not trained by Apollo must show atleast 1 year of experience of working in a large corporate hospital.

7) Process Flow

Generic process flow in the emergency department is shown below



All emergency procedures can be done at bedside of any bed / gurney. Elective minor procedures will be done in the **procedure room**.

a) ER Reception & Registration

- It is manned by front office personnel and operates 24/7
- It is responsible for providing information and assistance to the patients/relatives
- It shall ensure registration of all the patients visiting the Emergency Room

Work Instructions for Reception and Registration Executives

- All walk –in patients shall be registered by the registration desk at arrival to ED.
- In case if the patient is alone, disabled, incapable or unable to register for some reason the patient is directed to the triage room and a bedside registration is done in the ER.
- Each folder must have an ER physician assessment and ER nursing assessment sheets, along with identification bands

b) Nursing & Reception Desk

- It is manned by ER nurses and operates 24/7
- It is responsible for the first reception of all patients visiting the ER, for receiving phone calls to the ER, for data entry into the hospital information systems, lab & investigation orders, documentation and various other processes related to the admission.

c) *Triage area*

- The triage area has 3 patient gurneys
- ALL THREE MAY BE USED FOR RESUSCITATION WHEN NEEDED
- The 2 triage area nurses per shift will be dedicated to the triage area patients
- The triaging in EMD is a physician directed triage.
- The triage nurses assists the triage physician in the process.

Triage Criteria and Time Lines

Triage category	Triage criteria	Time lines for Emergency Physician to see the patient
1	All patients in cardiac arrest Any patient with compromised airway, breathing ,circulation GCS < 8,Evidence of obstructed or threatened airway RR- less than 10 or more than 30 Pulse rate- less than 60 or more than 120/min SBP < 90 or >180 mm Hg All polytrauma patients, chest pain, acute stroke, severe sepsis/septic shock	Immediately
2	All patients A,B,C relatively stable but have potential to develop life threatening problems ,all non ambulatory patients with stable vitals	Within 10 minutes
3	A,B,C, vitals are stable, no clinical history suggestive of life threatening /serious medical problem	Within 30 minutes

Work Instructions in Triage area

1) Receive and greet the patient
2) Comfort and reassure
3) Triage nurse documents the vitals and takes the brief presenting history
4) Triage physician prioritizes patients as per needs
5) If the patient is accompanied by a relative/attendant they are directed to the registration counter for patient registration

6) If the patient is non ambulatory, alone, elderly or handicapped a bedside registration is done with the help of EMD executive and front office staff

7) Patient is directed to resuscitation area, treatment area or send for investigations from triage as per the need of the patient's clinical condition

8) The triage nurse documents the vitals on the ER nursing assessment sheet.

9) The triage priority is documented on the ER physician assessment sheet by the emergency physician

Resuscitation Beds

- There is 1 bed dedicated as RESUSCITATION BED in the ER triage area. This bed is always kept free to receive priority 1 patients and all the resuscitative equipment like defibrillator, infusion pumps, airway management kit, trauma kit, pediatric kit and ventilator is available around this bed.
- Patients requiring resuscitation are directed to resuscitation bed from the triage room.
- The other beds in treatment room can also be used for resuscitation as all the equipment is on movable trolleys.

Work Instructions for the Resuscitation Bed

- One resuscitation bed should always be kept available to receive any kind of emergency at any point of time
- The resuscitation area will have all the necessary equipment for adult and pediatric resuscitation (equipment list for resuscitation area)
- The charge nurse on shift will be responsible for co-coordinating the nursing aspect of resuscitation
- The charge nurse will mobilize staff from treatment or triage area for resuscitation and if needed will take help of the nursing director for additional manpower

e) *Decontamination Area*

- The ED has a decontamination area next to the entrance
- It has facility for eye-wash, ceiling mounted showers and hand shower

Work Instructions for decontamination area

- All suspected contaminated cases can be directly brought in to the DECON area from the entrance or directed to DECON from the triage desk

- All personnel handling such cases must have appropriate PPE (Personal Protective Equipment) on them
- After thorough decontamination patients are shifted to the Triage / Treatment Room.
- All contaminated clothes and material are segregated and handled as per the hospital infection control/hazmat management policy.

f) *Treatment area*

- The treatment area has 4 patient beds
- 2 of these can also be used as a resuscitation beds

Work Instructions for the Treatment bed:

- Receive the patient from triage
- Reassess the clinical condition of the patient
- Rapidly assess, treat problems related to A,B,C
- The nurse connects the patient to monitor, oxygen and rechecks the vitals
- The nurse will secure an IV access if asked for by the physician, preferably blood samples should be drawn on the patient at this time
- The Emergency physician will order necessary investigations and provide rapid treatment for the patient.
- The nurse administers the stat medications as ordered by the physician
- The Nurse documents the nursing notes at the appropriate place on regular intervals
- The emergency physician will call upon consultants of appropriate specialty if necessary and carry out the further line of treatment
- The nurse will follow on the investigation reports and document on the chart
- The Emergency physician will document the assessment, investigations, treatment on the initial patient assessment sheet or appropriate sheets for the presenting illness.
- If the patient requires admission the patients attendant / relatives are given the in-patient admission slip and directed to the admissions to complete the formalities
- In cases where there are no relatives / attendants or patient is not fit to be moved the physician will arrange for a bedside registration with the help of executive and front office staff.

- The patient could be admitted, observed, transferred or discharged depending upon the clinical condition and re-evaluation
- For patients staying over two hours in EMD, the dietician is informed by the nurse
- The nurse indents the medicines used for the patient and ensures appropriate billing for all the items
- The maximum duration for which the patient can be observed in EMD is 24 hours,
- Beyond 24 hours the patient is disposed from the EMD with appropriate instructions.
- In case where the observation period extends beyond 24 hours the reason for the delay should be documented on the chart by the on duty emergency physician.

g) *Disposition from EMD*

DISCHARGE FROM EMD AS OUTPATIENT

- The emergency physician fills out the out patient assessment sheet, documents all investigation reports and treatment given to the patient
- The emergency physician explains the patient in detail about discharge advise and documents it on the chart.
- The nurse ensures the appropriate billing for all the consumables used, consultations, medications administered and procedural charges if any.
- A copy of the discharge advice form is handed over to the patient after the patient has finished all the formalities. The other copy of the discharge advice is put in the patient OP folder

DISCHARGE FROM EMD AS IN-PATIENT

- All patients admitted in the ED shall have an initial assessment sheet documented by the emergency physician on duty.
- The ER Physician will document the clinical findings, investigation reports and details of the treatment given.
- A specialist consult if necessary shall be sought and details of the same documented on the chart
- The emergency physician explains the patient in detail about discharge advice and documents it on the chart.

- The nurse ensures the appropriate billing for all the consumables used, consultations, medications administered and procedural charges if any
- Physician instructs the nurse to send the activity card for billing
- The physician fills in the discharge summary for the patient
- The nurse will send it for typing and hand over the typed summary to the patient / relatives
- The nurse also explains the medications dosage and timings to the patient

TRANSFER FROM EMD TO WARDS

- The nurse incharge confirms the availability of allotted bed and informs about the patient to be shifted to the receiving area nurse
- The executive will co-ordinate with the admission about the availability of beds and expedite the process.
- The doctor and the nurse complete all the necessary documentation before the transfer of the patient
- Patient and the family are explained about the transfer in advance
- The patient is accompanied by the nurse and transferred to their allotted bed.
- The nurse carries the documentation and gives the hand over to the receiving area nurse
- Continuity of care, patient safety is maintained during the time of transfer

TRANSFER FROM EMD TO ICU

- All patients are transferred accompanied by a nurse.
- All patients admitted to ICU will be tagged as PATIENT FIRST
- In case the patient is intubated or is hemodynamically unstable, the physician will accompany the patient or call in for on call anesthetist on duty to transport the patient
- The nurse in-charge will confirm the availability of allotted bed and inform about the patient to be shifted to the receiving area nurse

- The doctor and the nurse complete all the necessary documentation before the transfer of the patient
- The patient is accompanied by the nurse and transferred to their allotted bed in the ICU
- The nurse will carry the documentation and give a hand over to the receiving area nurse.
- Continuity of care and patient safety is maintained during transfer

TRANSFER FROM EMD TO OPERATING ROOM

- All patients are transferred accompanied by a nurse.
- In case the patient is intubated or is unstable hemodynamically the physician will accompany the patient or call in for on call anesthetist to transport the patient
- The nurse in-charge will confirm the availability of operating room and inform about the patient to be shifted to the area nurse
- The doctor and the nurse complete all the necessary documentation before the transfer of the patient
- The nurse ensures that the necessary pre-procedural investigations, screening status, imaging results are available to the anesthetist.
- The nurse ensures that the necessary consent is taken in the ER before shifting the patient
- The nurse will also ensure that necessary arrangement for blood and blood products in cases going in for emergent surgeries
- The Pre-anesthetic check should be carried on the patient in the ER before shifting to the OR. All preoperative orders must be carried out in ER
- The nurse will carry the completed documentation and give a hand over to the receiving area nurse.

TRANSFER TO CATH LAB

In case requiring urgent intervention like Primary angioplasty or temporary transvenous pacing the patient shall be shifted to the cardiac catheterization lab from Emergency room.

The ER Physician on duty shall discuss the same with cardiologist on call and arrive at the decision quickly

The ER Physician / ER Nurse on duty shall inform the cath-lab and ensure the availability of cath-lab

- All patients being shifted to Cathlab for urgent intervention must be shifted under constant monitoring with a monitor defibrillator and must be accompanied by a ERP or transport anesthetist.
- The nurse in-charge will confirm the availability of operating room and inform about the patient to be shifted to the area nurse
- The doctor and the nurse complete all the necessary documentation before the transfer of the patient
- The nurse ensures that the necessary pre-procedural investigations, Screening status, ECG, imaging results are available to the anesthetist.
- The nurse ensures that the necessary consent is taken in the ER before shifting the patient
- The nurse will carry the completed documentation and give a hand over to the cath lab nurse

TRANSFER TO OTHER FACILITY

- In cases where the patient requests for a transfer to other facility or the clinical presentation is with conditions where our institute does not provide in patient services (like psychiatry, burns, infectious or communicable diseases), the patient would be given initial necessary treatment, explained the risk associated and the reasons for transfer and shifted to appropriate facility .
- In case the patients chooses to go against medical advise a Left Against Medical Advice form is to be filled in by the physician and signed by the patient/ relatives.
- All patients transferred from EMD to any other facility are be given a hand written brief summary on the patient assessment and treatment in EMD to ensure continuity of care for the patient.
- If necessary the physician will directly get in touch with the receiving facility authorities and inform them about the clinical condition of the patient

8) Equipment, Consumables & Drugs

List of equipment, consumables and drugs for the following are attached separately.

1. **BLS AMBULANCE** (Basic Life Support)
2. **ALS AMBULANCE** (Advanced Life Support)
3. **AMBULANCE CONTROL DESK**
4. **DECONTAMINATION AREA**
5. **ISOLATION AREA**

6. **TRIAGE ROOM**
7. **NURSING & RECEPTION DESK**
8. **EMERGENCY PHYSICIAN CONSULTATION ROOM**
9. **TREATMENT AREA**
10. **PROCEDURE AREA**
11. **WAITING AREA FOR ATTENDANTS**
12. **CLEAN UTILITY**
13. **DIRTY UTILITY**

9) Safety & Infection Control

STAFF SAFETY

- The necessary PPE (Personal Protective Equipment) like gloves, face masks, caps, hand rub solutions, soap, gowns, etc, is provided in the emergency room for the usage by the staff. The staff must ensure use of appropriate PPE when handling patients
- availability of decontamination shower and eye wash within the department
- availability of hand wash solutions at bedside
- universal precautions
- hand washing practices before and after patient care

- staff immunization
- safe disposal of sharps
- hazardous material storage
- incident log for needle stick injuries
- regular safety instructions by the supervisors
- dedicated isolation area for suspected infectious /communicable disease patients

PATIENT SAFETY

- following safety first policy
- safe medication policy
- time out before procedures
- effective communication
- hand wash
- providing a even surface and ensuring adequate space for patient movement
- side railings on every patient bed
- adequate lighting in emergency department
- nurse/doctor accompanies the patient during the transfer to any other area

10) Patient Documentation

1	**INITIAL PATIENT RECORD** (Used to register or refer OP patients to appropriate specialty)
2	**INITIAL ASSESSMENT SHEET** (Dept of Emergency Medicine - Initial assessment sheet)
3	**ADMISSION NOTE** (In patient admission requisition)
4	**INPATIENT RECORD** (Nursing assessment & clinical chart + doctors note + drug chart + stat order + diet order + investigation chart + nutrition + Interdisciplinary Team notes)
5	**PROGRESS NOTE** (Extra sheets for doctor's notes)
6	**REQUEST FOR INVESTIGATIONS** (Investigation tick sheet for OP patients)
7	**OUT PATIENT CASE RECORD** (For all outpatients treated and sent from ER) (2 Copies)

8	**DIABETIC MONITORING CHART** (INTRAVENOUS)
9	**BROUGHT DEAD CERTIFICATE**
10	**DEATH CERTIFICATE**
11	**PRE-ANAESTHETIC ASSESSMENT**
12	**CONSENT FORM & PROCEDURE RECORD** (For Procedure, surgery, treatment, anesthesia & high risk consent)
13	**DISCHARGE AGAINST MEDICAL ADVICE**
14	**MEDICO LEGAL CASES REGISTER SHEET S** (4 Copies)
15	**ACUTE CORONARY SYNDROME SHEET**
16	**TRAUMA EVALUATION SHEET**
17	**ACUTE STROKE SHEET**
18	**POISONING EVALUATION SHEET**
19	**BLOOD / COMPONENT DEMAND & TRANSFUSION RECORD FORM**
20	**PRESCRIPTION PADS**
21	**MORTUARY PROTOCOL CHECK LIST**
22	**INTAKE OUTPUT CHART**
23	**PATIENT CARE RECORD** (PCR) (For patient documentation during ambulance transfers)

11) Record Keeping

1	Imprest Stock Register
2	MLC Register
3	Equipment Maintenance Register
4	CSSD Register
5	Indent Book
6	Medical Record Book
7	Brought Dead Book

8	Glucometer Calibration book
9	Stationary Indent Book
10	Main Store indent book
11	In-Patient Admission Register
12	Out-Patients Register
13	Narcotic Indent Book
14	Defibrillator Check File
15	Refrigerator Check File
16	Incident Reporting File
17	Imprest Stock file
18	Doctor's Duty Roster File
19	Nurses Duty Roster File
20	Ambulance Drivers Duty Roster File
21	Emergency Medical Technicians Duty Roster File
22	Nurses, EMT, Driver and Doctors Phone Directory
23	Drug Information Book (CIMS) or Hospital Pharmacy Book
24	Sample Sending Register
25	

12) Staff Training

1) Induction program
2) Department policies & protocols
3) On job training
4) Encouraging sharing of knowledge and learning through discussions and demonstrations
5) Training classes from HR department
6) Regular departmental workshops
7) NABH awareness programs

8) Focus on communication skills and presentation
9) Mandatory BLS, ACLS, PALS training for all staff
10) Regular assessment and monitoring of skills
11) ATLS based training for trauma management
12) Fire Safety
13) Hazardous material safety
14) Radiation safety
15) Competency Testing

13) Protocols

Protocols for common processes in Emergency Medicine Department

Protocol for death and breaking bad news in EMD

1) Involve the family members early in resuscitation
2) Continuously update the nearest relative on the status of the patient
3) Offer an area to sit (counseling room)
4) Involve Medical Social worker early
5) Offer assistance with religious services
6) Demonstrate compassion and empathy towards the feelings of the family
7) Break the bad news in the counseling room
8) Nurses to expedite the process of cleaning ,packing of the patient
9) Medical social worker and executive EMD to offer any other assistance to the family
10) Emergency Physician to expedite documentation and processes on priority basis
11) Assistance with transport to the destination required by the family members

12) Ensure proper documentation of the resuscitation and death notes

13) In cases of medico legal issues ensure completing the necessary documentation and hand over the body to police

14) The nurse in charge will complete the requirements as per mortuary protocol list before shifting the patient to mortuary

15) House keeping to assist in appropriate transport to mortuary

16) If there is any suspicion about the cause of death ask for autopsy

17) Discuss with the family about organ donation.

Protocol for brought dead patients

1) The emergency physician confirms the death

2) Registration is done bedside

3) Death news is broken as per the protocol above

4) Documentation entered on the initial assessment sheet

5) In case the patient is being treated by one of the consultants in the hospital in recent times, the consultant is notified. A cause of death certificate can be issued in such cases after ascertaining the history, previous notes and advice of treating physician

6) Issue a brought dead certificate if there is no suspicion/evidence of unnatural death

7) In cases of doubt of any sort with respect to the events relating to the death, insist on a post mortem/medicolegal case registration

Protocol for Medicolegal cases

1) All road traffic accidents, assault, poisonings, burns, suicide attempts, sexual assault, animal attacks, unnatural death require medico legal registration as per the law

2) Assess and treat the patient first

3) Document the findings on the chart

4) Emergency physician to fill the MLC form in quadruplet, take signature of the attendant if available, inform the security

5) Hand over original copy of the MLC form and the pink copy to security

6) Attach the green copy on the patients folder

7) The yellow copy remains in the MLC book.

8) Ensure appropriate documentation of patient particulars ,injuries ,treatment given

9) Ask for assistance with magistrate to record dying declaration statement in appropriate case-e-g more than 60% burns

10) Collect body fluids and samples as necessary

Protocol on infectious / communicable diseases

As per the hospital policy cases with suspected communicable diseases (Eg: open tuberculosis) cannot be admitted to this facility. In event of such cases arriving in the EMD following protocol is to followed

1) All suspected cases to be treated as potentially infectious to the staff and other patients in ER

2) The triage physician will alert the EMD staff and assign the isolation room for temporary isolation.

3) Infection control team is alerted and Infectious disease specialist consult is sought.

4) Staff must use appropriate PPE (Personal Protective Equipment) and if necessary put on mask for the patient.

5) Necessary initial treatment is offered in the isolation room, a dedicate nurse is attached to the patient

6) Relatives are informed about the hospital policy and suggested appropriate centers for transfer

7) A discharge note with the details is handed over to the patient/relative.

8) In case of an ambulance transfer, ambulance staff to ensure appropriate PPE

9) Hand over the patient to the designated center

10) Ensure decontamination of the ambulance, equipment in discussion with infection control team

11) Ensure usage of disposable materials on such patients

12) In-case of an epidemic follow the epidemic response flow chart

Protocol on psychiatric emergencies

1) Assess and stabilize A,B,C
2) Physical and pharmacological restraint
3) Inform the psychiatry consultant on call
4) Administer initial medications as per requirement only if necessary
5) Discuss with patients attendant about the hospital policy on admitting psychiatry patients
6) Suggest appropriate referral center
7) Assist with transportation to the required center
8) Provide discharge advise

Protocol in burns cases

1) Assess and stabilize A, B, C
2) Administer initial medications as per requirement
3) Discuss with patients attendant about the hospital policy on admitting burns patients
4) Suggest appropriate referral center and assist with transportation to the required center
5) Provide discharge advice

Protocol for needle stick injuries

The EMD is designated as the area where all the staff with needle stick injuries have to report. In such events following protocol is to be followed

1) wash under running water with soap
2) control the bleeding if required by compression
3) draw the samples from the staff for HIV, HBsAG, HCV, Anti HBs antibody titre
4) inform infection control officer - Head of Microbiology
5) inform the supervisor of the staff, ensure collection of blood samples from the patient on whom the needle was used
6) start prophylaxis as per the guidelines in infection control manual

7) incident report to be raised and submitted to Medical Superintendent's office

Protocol for conscious sedation in EMD for painful procedures

As per the hospital policy the conscious sedation in emergency department is provided only by an anesthetist.

In event of conscious sedation is required to be administered to any patient in EMD following protocol is to be followed

1) Call the on duty anesthetist
2) Ensure availability of monitoring device
3) Nurse ensures availability of consent forms for the procedure
4) Anesthetist explains the procedure and fills the consent form and gets it signed by the patient
5) Nurse administers the drug as per the written orders of anesthetist
6) Nurse observes the patients vitals, clinical condition as required by the anesthetist
7) Nurse documents the findings on the conscious sedation observation chart
8) Anesthetist reviews the patient status and decides on further observation and discharge
9) Ensure appropriate discharge advise

Protocols for management common emergencies

Refer EMD Manual for common emergencies

Protocol for common clinical procedures in EMD

Refer EMD manual on common clinical procedures

Protocol for Disaster Management

Refer-CODE RED manual

Protocol for Acute Stroke

Refer EMD stroke algorithms / stroke pathway in stroke folder

Protocol for Sepsis Pathway

Refer sepsis algorithms / sepsis pathway in sepsis folder

14) Quality Monitoring

The following indicators are used to monitor the quality of emergency care provide in the emergency medicine department.

1) <u>Success rate of intubation by emergency physicians in emergency department</u>

Objective-

- Airway management is the most important skill necessary for Emergency medicine physician and therefore analyzing the intubation success rate helps in

  1) Demonstrating, assessing the skills of emergency physician

  2) Identifying needs for improvement in certain areas, individuals

  3) Helps in gaining confidence of consultants in the ability of emergency physicians to handle critically ill patients

2) <u>Door to CT time in Acute Stroke patients</u>

Objective-

- Acute Ischemic stroke is an important clinical pathway and needs early detection, diagnosis and treatment. Door to CT time is vital in reducing the door to needle time for patients within window period. The benchmark time is 45 minutes from arrival at the ER door.

3**) <u>Feedback from patients admitted through EMD on services provided in the EMD</u>**

Objective-

1) to understand the patients perception of services delivered in EMD

2) to identify reasons for dissatisfaction

3) to implement corrective actions on identified deficiencies to improve patient experience in future

15) Ambulance Vehicles

There are two ambulance vehicles for the emergency medicine department.

BLS AMBULANCE

The Basic Life Support (BLS) ambulance vehicle is used to transport relatively stable patients. It has basic equipment necessary to manage patients who become suddenly unstable for a short duration during transport to the ER.

The oxygen capacity of the BLS Ambulance is two cylinders of 1200L capacity each. This gives an oxygen supply time of no more than 3 hours @12L/min, with full cylinders. (Safe time is 2 hours)

The BLS ambulance can be used to transport the following patients

- Stable patients from home to hospital and vice versa, within the city
- Stable patients from hospital to hospital, within the city
- Emergency patients who can be brought to the ER within 15 minutes

The BLS ambulance can be converted to ALS ambulance by adding a defibrillator, pulse oximeter, ventilator, additional oxygen cylinders and management kits for airway / intubation, trauma & pediatrics.

ALS AMBULANCE

The Advanced Life Support (ALS) ambulance vehicle is used to transport unstable patients. It has all the necessary equipment to manage a patient who is critically ill or critically injured.

The oxygen capacity of the ALS Ambulance is two cylinders of 8000L capacity each. This gives an oxygen supply time of no more than 22 hours @12L/min, with full cylinders. (Safe time is 15 hours)

The ALS ambulance can be used to transport the following patients

- Stable & Unstable patients from home to hospital and vice versa, within & out of the city
- Stable & Unstable patients from hospital to hospital, within & out of the city
- All emergency patients who require a transport time of less than 15 hours
- Ventilated patients who require a transport time of less than 15 hours
- Trauma victims with multi-system injuries

- Hypotensive patients
- Patients who require intubation in the ambulance
- Pediatric patients

This document was compiled for **Apollo Hospitals, Secunderabad** by:

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